

REMARKS

This amendment responds to the Office Action dated October 17, 2008, in which the Examiner rejected claims 1-8 under 35 U.S.C. § 103.

As indicated above, claims 1 and 4 have been amended in order to make explicit what is implicit in the claims. The amendment is unrelated to a statutory requirement for patentability.

Claim 1 claims an image pick-up apparatus and claim 4 claims an image pick-up method. The apparatus and method include a solid-state image pick-up device, a switching means, control means, storage means and timing generating means. The image pick-up device performs photo-electric conversion in accordance with a received image pick-up light. The switching means switches between a first mode serving as image pick-up mode where charges stored in the solid-state image pick-up device are readout every n frame and a second mode where charges are stored in the image pick-up device are readout every m fields to add odd charges and even charges which are adjacent in a vertical direction of the charges while changing the combination thereof every m fields to output a CCD output signal. The control means controls the switching means in such a manner to switch the image pick-up mode into a first mode in accordance with a request at a low output sensitivity and to switch the image pick-up mode into a second mode in accordance with a request at a high output sensitivity. The timing generating means controls readout of the output CDC output signals from the image pick-up device and controls storage and output of the storage means. At every frame in the first mode or at every field in the second mode, during non-readout of the image pick-up device, the storage means outputs a same CDC output signal.

By having a storage means output a same CDC output signal during non-readout of the image pick-up device, as claimed in claims 1 and 4, the claimed invention provides an image

pick-up apparatus and method in which a non-intermittent image can be obtained on a monitor connected to the pick-up apparatus. The prior art does not show, teach or suggest the invention as claimed in claims 1 and 4.

Claims 1-8 were rejected under 35 U.S.C. § 103 as being unpatentable over *Suzuki, et al.* (U.S. Patent No. 6,515,703) in view of *Okino, et al.* (U.S. Patent No. 5,019,911).

Suzuki, et al. appears to disclose a timing signal generator 2 for generating a timing signal used to control the operation of an image sensing device (column 7, lines 6-8). The operation mode of the timing signal generator 2 is switched in response to a frame mode/field mode signal supplied by a driving voltage switching circuit 11 so that the reading pulses of vertical transfer pulses have a proper width corresponding to the reading mode. As shown in Figure 2, the reading pulse has a greater width in a frame mode operation than in the field mode operation so that charges can be transferred from the photoelectric conversion part to the vertical transfer part without any problem even in the case where the storage capacity of the photoelectric conversion part is increased by switching the substrate potential (column 7, line 60-column 8, line 8).

Thus, *Suzuki, et al.* merely discloses the timing signal generator 2 generating a timing signal used to control the output of the image sensing device. Nothing in *Suzuki, et al.* shows, teaches or suggests a timing generating means controlling storage and output of a storage means and controlling readout from the image pick-up device as claimed in claims 1 and 4.

Furthermore, nothing in *Suzuki, et al.* shows, teaches or suggests during non-readout of the image pick-up device, the storage means outputs a same CCD output signal at every frame in a first mode or at every field in a second mode as claimed in claims 1 and 4. Rather, *Suzuki, et al.* merely discloses a timing signal generator 2 generating a timing signal used to control the operation of an image sensing device.

Okino, et al. appears to disclose a control circuit 10 judges whether or not a light amount is sufficient on a basis of a reference value L_0 . The reference value is set to about 70% of the correct light amount. For reading the CCD image sensor 5, when the light amount is almost sufficient, the frame image pick-up mode is automatically selected by the control circuit 10. When there is insufficient light, the field image pick-up mode in which the sensitivity becomes two times as high as the frame image pick-up mode is selected (column 4, lines 56-68).

Thus, *Okino, et al.* merely discloses selecting a reading mode based upon the amount of light. Nothing in *Okino, et al.* shows, teaches or suggests during non-readout of the image pick-up device, a storage means outputs a same CCD output signal at every frame in a first mode or at every field in a second mode as claimed in claims 1 and 4. Rather, *Okino, et al.* only discloses using a light quantity to select the frame or field mode.

A combination of *Suzuki, et al.* and *Okino, et al.* would merely suggest that in addition to controlling the image sensing device by the timing signal generator 2 of *Suzuki, et al.* to also have a control circuit which changes the frame or field mode based upon the amount of received light as taught by *Okino, et al.* Thus, nothing in the combination of the references shows, teaches or suggests a) a timing generating means controlling readout from an image pick-up device and controlling storage and output of a storage means and b) at every frame in a first mode or every field in a second mode, during non-readout of the image pick-up device, a storage means outputs a same CCD output signal as claimed in claims 1 and 4. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 1 and 4 under 35 U.S.C. § 103.

Claims 2-3 and 5-8 depend from claims 1 and 4 and recite additional features. Applicant respectfully submits that claims 2-3 and 5-8 would not have been obvious within the meaning of

35 U.S.C. § 103 over *Suzuki, et al.* and *Okino, et al.* at least for the reasons as set forth above.

Therefore, Applicant respectfully request the Examiner withdraws the rejection to claims 2-3 and 5-8 under 35 U.S.C. § 103.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

CONCLUSION

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to Deposit Account No. 50-0320.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 50-0320.

Respectfully submitted,

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